

U.S. Department of Energy
Technical Qualification Program

Technical Training Topical Area

Study Guide

For the

***EH Resident
Qualification Standard***

August 1996



Competency 2.19 EH Residents shall demonstrate a working level knowledge of the requirements for training and qualification program(s) identified in the following Department of Energy (DOE) Orders:

- DOE Order 5480.20A, Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Reactor and Non-Reactor Nuclear Facilities.
- DOE Order 3410.1B, Training

1. Supporting Knowledge and Skills

- a. Describe the purpose and scope of the Orders listed above.
- b. Discuss why certain skills or proficiencies should be demonstrated periodically.
- c. Describe the changes to a program or process that require modification to a training program.
- d. Using DOE Order 5480.20A, *Personnel Selection, Qualification, Training, and Staffing Requirements at DOE Reactor and Non-Reactor Nuclear Facilities*, as a reference, describe the general requirements placed on Management and Operating (M&O) contractors at Category 1, 2, and 3 facilities in the following areas:
 - Qualification and certification of facility personnel
 - Training and qualification of sub-contractors
 - General employee training and unescorted access requirements
 - Continuing training and re-qualification
 - Exceptions and alternatives to requirements of the Order
 - Personnel selection
 - Training and qualification

2. Self-Study Activities

NOTES: • The DOE Orders are in a state of transition. Please refer to the following gopher site for a cross reference of new and old Orders:
gopher://VM1.HQADMIN.DOE.GOV:70/00/doemenu1/directiv/251cross.asc



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- Below are two web sites containing many of the references you may need.

Web Sites		
Organization	Site Location	Notes
Department of Energy	http://cted.inel.gov/cted/index.html	DOE Standards, Guides, and Orders.
U.S. House of Representatives	http://law.house.gov/cfr.htm	Searchable Code of Federal Regulations

NOTE: 3410.1B, *Training*, was replaced by 360.1, *Training*.

Read Chapter I of DOE Order 5480.20A, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities*.

Read DOE Order 360.1, *Training*.

- EXERCISE 2.19-A Describe the purpose and scope of the Orders listed above.
- EXERCISE 2.19-B Discuss why certain skills or proficiencies should be demonstrated periodically.
- EXERCISE 2.19-C Describe the changes to a program or process that require modification to a training program.
- EXERCISE 2.19-D Using DOE Order 5480.20A, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities*, as a reference, describe the general requirements placed on Management and Operating (M&O) contractors must meet for the following areas:
- Qualification and certification of facility personnel
 - Training and qualification of sub-contractors
 - General employee training and unescorted access requirements
 - Continuing training and requalification.
 - Exceptions and alternatives to DOE Order 5480.20A requirements
 - Personnel selection
 - Training and qualification



3. Summary

DOE Order 360.1 identifies the general requirements for DOE Federal employee training. The Order states the requirements for administering the training and qualification of technical employees and managers thereby providing management direction and oversight that could impact the safe operation of a defense nuclear facility.

DOE's objectives are to ensure the development and implementation of contractor-administered training programs that provide consistent and effective training for personnel at DOE nuclear facilities. DOE Order 5480.20A contains minimum requirements that must be included in contractor training and qualification programs. The requirements are based on DOE, Nuclear Regulatory Commission (NRC), and related industry standards, and are applicable to all operable DOE nuclear facilities. Because the operation of DOE reactor and non-reactor nuclear facilities involves certain risks to employees, the public, and the environment, well-trained and qualified operating organization personnel are of extreme importance. A vital element in ensuring a well-trained and qualified work force is the implementation of the systematic approach to training (SAT). This approach has proven effective in the commercial nuclear power industry and in other major industries.

4. Exercise Solutions

EXERCISE 2.19-A Describe the purpose and scope of the Orders listed above.

ANSWER 2.19-A The purpose of DOE Order 5480.20A, *Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities*, is to establish selection, qualification, and training requirements for management and operating (M&O) contractor personnel involved in the operation, maintenance, and technical support of Department of Energy-owned (DOE-owned) Category A and B reactors and non-reactor nuclear facilities.

DOE Order 5480.20A is applicable to all Departmental Elements which are responsible for operable DOE-owned Category A and B reactors and non-reactor facilities. The Director, Naval Nuclear Propulsion Program, is exempt from this Order. Attachment I sets requirements that are to be applied to the universe of contractors awarded DOE management and operating contracts involving operable DOE-owned Category A and B reactors and non-reactor facilities. (Paragraph 3)



The purpose of DOE Order 360.1, *Training*, is to:

- a. Assign responsibilities and provide requirements for establishing, implementing, documenting and evaluating training programs for Federal employees.
- b. Commit to the continuing development of employees to ensure quality performance from a technically competent, versatile, and diverse work force.
- c. Establish the requirements for the training and qualification of technical employees and managers whose position requires them to provide management direction or oversight that could impact the safe operation of a defense nuclear facility.

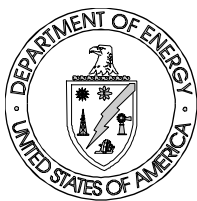
This Order is applicable to Department of Energy Federal employees. Clarification of the applicability of the specific requirements is included within the chapters.

EXERCISE 2.19-B Discuss why certain skills or proficiencies should be demonstrated periodically.

ANSWER 2.19-B Demonstration of certain skills should be demonstrated periodically to ensure adequate maintenance of the required skills. This is especially important for skills that are performed infrequently but are difficult to perform and are very important to safe operations.

EXERCISE 2.19-C Describe the changes to a program or process that require modification to a training program.

ANSWER 2.19-C Changes in areas such as policies and/or procedures, system or component design, job requirements, regulatory requirements, and industry guidelines or commitments may require modification to a training program. Adjustments should also be made as a result of reviews of operating experience information such as Occurrence Reports, inspection reports, information notices, and bulletins.



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EXERCISE 2.19-D Using DOE Order 5480.20A, Personnel Selection, Qualification, and Training Requirements for DOE Nuclear Facilities, as a reference, describe the general requirements placed on Management and Operating (M&O) contractors must meet for the following areas:

- Qualification and certification of facility personnel
- Training and qualification of sub-contractors
- General employee training and unescorted access requirements
- Continuing training and requalification.
- Exceptions and alternatives to DOE Order 5480.20A requirements
- Personnel selection
- Training and qualification

ANSWER 2.19-D The following matrix outlines the location of DOE Order 5480.20A requirements for the listed areas.

Area	DOE Order 5480.20A Citation
Qualification and certification of facility personnel	Chapter I, Paragraphs 5 and 6
Training and qualification of sub-contractors	Chapter I, Paragraph 3
General employee training and unescorted access requirements	Chapter I, Paragraphs 7.e.
Continuing training and requalification	Chapter I, Paragraphs 7.d. and 10
Exceptions and alternatives to DOE Order 5480.20A requirements	Chapter I, Paragraphs 11 and 13
Personnel selection	Chapter I, Paragraph 4
Training and qualification	Chapter I, Paragraphs 5 and 7